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| 09/778,704                  | 02/07/2001  | Christopher J. Edge  | 10258US01               | 4184             |
| · 7590 10/29/2003           |             |                      | EXAMINER                |                  |
| Attention: William D. Bauer |             |                      | AMINI, JAVID A          |                  |
| Imation Corp. Legal Affairs |             |                      | ART UNIT                | PAPER NUMBER     |
| P.O. Box 64898              |             |                      | 2672                    | <i>d</i>         |
| St. Paul, MN 55164-0898     |             |                      | DATE MAILED: 10/29/2003 | 9                |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.  | Applicant(s)   |  |  |  |  |
|---|--|--|--|--|--|--|
| ,   | 09/778,704   | EDGE ET AL.  |  |  |  |  |
| Office Action Summary   | Examiner   | Art Unit   |  |  |  |  |
|   | Javid A Amini  | 2672   |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |  |
| Status  |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |  |  |  |  |  |  |
| , <u> </u>  | is action is non-final.  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims   |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-42</u> is/are pending in the application  |  |  |  |  |  |  |
|   | 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-42</u> is/are rejected.   |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   |  |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  Application Papers   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |  |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |  |  |  |  |  |  |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  |  |  |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |  |  |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |  |  |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |  |  |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |  |  |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  |  |  |  |  |  |  |
| <ol> <li>Certified copies of the priority documents</li> </ol>  | 1. Certified copies of the priority documents have been received.  |  |  |  |  |  |
| 2. Certified copies of the priority documents   | 2. Certified copies of the priority documents have been received in Application No   |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.  |  |  |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |  |  |  |  |  |  |
| a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.   |  |  |  |  |  |  |
| Attachment(s)   |  |  |  |  |  |  |
| 1)  Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.   | 5) Notice of Informal F  | (PTO-413) Paper No(s) Patent Application (PTO-152)   |  |  |  |  |
| S. Patent and Trademark Office  |  |  |  |  |  |  |

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## **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 5, 6, 7, 9, 11, 12, 13, 16, 17, 18, 22, 27, 29, 31, 32, 33, 35, 37, 38, 41 and 42 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 7, 8, 10, 12, 13, 14, 15, 16, 19, 21, 24, 25, 30, 31, 32, 34, 36, 37, 40 and 39 of copending Application No. 09/778,515. Although the conflicting claims are not identical, they are not patentably distinct from each other because, see below:

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The comparison of claims 1,16 and 27 (the limitations shown by A', B', C', .....) over claims 1, 15, and 25 (the limitations shown by A, B, C, .....) of copending Application No. 09/778,515.

- Pending independent claim 1, of 09/778,515: A method comprising: (A) generating gray elements and a dithered gray background for display on a display device, (B) the dithered gray background representing a gray level of approximately 25 to 40%; (C) estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background.
- Pending independent claim 1, of 09/778,704: A method comprising: (A') generating a first gray element based on an estimated gamma for a green channel of a display device; (B') generating a set of red-blue shifted gray elements that represent shifts in the red

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channel, blue channel, or a combination of the red and blue channels away from the first gray element; (C') and estimating a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background.

**The comparison:** The limitations A and C teach by A' and C'. But the limitation of B states 25-40% gray level, however, B' limitation states red-blue shift gray level as a way to adjust the second level. By adjusting the red-blue shift gray level, one may obtain gray level of 25-40% of B limitation.

- Pending independent claim 15, of 09/778,515: A system comprising: (A) a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; (B) a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; (C) a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the information includes a gamma for the display device, the gamma being determined by selecting one of a plurality of gray elements displayed by the display device that appears to most closely blend with a dithered gray background that represents a gray level of approximately 25 to 40%; (D) and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device.
- > Pending independent claim 16, of 09/778,704: A system comprising: (A') a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; (B') a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; (C') a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the information includes a gray balance for each of the display devices, and the color profiling process includes: displaying a first gray element based on an estimated gamma for the green channel of the display device, displaying a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray value, selecting one of the gray values that appears to most closely blend with a gray background, and estimating the gray balance of the display device based on the selected gray element; (D') and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device.

The comparison: The limitations of A, B, and D teach by the A', B', and D'. But the limitation of C states 25-40% gray level, however, C' limitation states red-blue shift gray

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level as a way to adjust the second level. By adjusting the red-blue shift gray level, one can obtain gray level of 25-40% of C limitation.

- ➤ Pending independent claim 25, of 09/778,515: A computer-readable medium containing instructions that cause a programmable processor to: (A) display a plurality of gray elements on a display device against a dithered gray background representing a gray level of approximately 25 to 40%; (B) select one the gray elements that appears to most closely blend with a dithered gray background; (C) and estimate a gamma for the display device based on the selected gray element.
- ▶ Pending independent claim 27, of 09/778,704: A computer readable medium containing instructions that cause a programmable processor to: (A') generate a first gray element based on an estimated gamma for a green channel of a display device; (B') generate a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element; (C') and generate a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background.

**The comparison:** The limitations B and C teach by the A' and C'. But the limitation of A states 25-40% gray level, however, B' limitation states red-blue shift gray level as a way to adjust the second level. By adjusting the red-blue shift gray level, one can obtain gray level of 25-40% of A limitation.

Pending dependent claims 6, 7, 8, 10, 12, 13, 14, 16, 19, 21, 24, 30, 31, 32, 34, 36, 37, 40 and 39 of 09/778,515 have the same claim invention of claims 5, 6, 7, 9, 11, 12, 13, 17, 18, 22, 29, 31, 32, 33, 35, 37, 38, 41 and 42 of 09/778,704 respectively.

#### Response to Arguments

Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

- Response to remarks regarding 35 U.S.C. 112 first paragraph on page 11:

  Applicant's arguments, have been fully considered and are persuasive. The rejection of 35 U.S.C. 112 first paragraph has been withdrawn.
- Response to remarks regarding 35 U.S.C. 112 second paragraph on page 12: It has been withdrawn.

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Response to remarks regarding 35 U.S.C. 102 on page 12: Applicant argues that the reference Yamamoto does not teach any of claim 1's feature. Interoperation of the claim 1's language: Applicant's claim language claims generating a gray color based on an estimated gamma for a green channel and red, blue channels or combination of the red and blue away from the gray element of a display. Yamamoto in Fig. 5 teaches, generating a background color that is based on red, blue and green color values, which monitor based on estimated gamma correction Fig. 12 step S303 of a display device. Yamamoto in Fig. 5 illustrates background color can be estimated base on user selection steps 141 and 142, or any combination of red, green and blue step 140 of a display. The claim language is covering broad limitations; perhaps applicant should be able to narrow them down to be more specific toward the invention. Answer to questions from applicant on page 14 second paragraph: Applicant 's first question, where does Yamamoto teach generating a first gray element based on an estimated gamma for a green channel of a display device? Knowing a gray (color) element is combination of RGB colors, the step is inherent because the default gray color can be called "first gray element" for any of the channels of display. Applicant 's second question, where does Yamamoto teach generating a set of red-blue shifted gray elements that represent shifts in the red channel, blue, or a combination of the red and blue channels away from the first gray element? By adjusting steps 141 and 142 on Fig. 5 of Yamamoto a shifted gray elements that generated by red-blue or combination of the red and blue channels, which is different from first gray

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element. Applicant 's third question, where does Yamamoto teach estimating a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background? See Fig. 5 of Yamamoto. Applicant argues on page 13 second paragraph that (it is unclear how a teaching of background color adjustment bears any relationship to the requirements of applicant's claims). But applicant fails to claim clearly and explicitly the generation of first gray element (what exactly applicant means by that statement?). By knowing that there is always background color (generation of gray element, also can be called a first gray element or color), when a display is "on" mode position. However, the following items require more explanation or support to specify the claim language regarding claim 1: How does an estimated gamma generates a first gray element? What is an estimated gamma? How does a set of red-blue shifted gray element generate? Is there any special method to estimate a gray balance of display based on user selection?

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## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6-11, 13, 27-30, 32-37 and 39 rejected under 35 U.S.C. 102(b) as being anticipated by Elaine Weinmann and Peter Lourekas (Photoshop for windows), hereafter refer "Elaine" with copyright of 1996.

### 2. Claim 1.

Elaine on page 256 Fig. 9, and also refer to page 122 Fig. 10 and page 252 Fig. 2 illustrates the step of "A method comprising: generating a first gray element based on an estimated gamma for a green channel of a display device; Elaine on page 15, Fig. 14 illustrates the step of "generating a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element"; Elaine on page 256, Fig. 9 illustrates the step of "estimating a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background".

## 3. Claim 2.

Elaine on page 256 Fig. 9, and also refer to page 15, Fig. 14 illustrates the step of "The method of claim 1, further comprising characterizing the colorimetric response of the display device based on the estimated gamma and estimated gray balance".

#### 4. Claim 3.

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Elaine on page 256 Fig. 9, and also refer to page 111, Fig. 2 and page 252, Fig. 2 illustrates the step of "The method of claim 1, further comprising: selecting one of a plurality of green elements displayed by a display device that appears to most closely blend with a dithered green background; and estimating the gamma for the green channel of the display device based on the selected green element".

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#### 5. Claim 4.

Elaine on page 256 Fig. 9, and also refer to page 111, Fig. 2 illustrates the step of "The method of claim 1, the method further comprising: modifying a color image based at least in part on the estimated gray balance; and delivering the modified color image to the display device".

#### 6. Claim 6.

Elaine on page 256, Fig. 9 illustrates the steps of "The method of claim 1, further comprising determining the estimated gamma by: selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements; selecting one of a second plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background. wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for the display device based on the selected one of the second plurality of green elements, wherein the estimated fine gamma is the estimated gamma".

#### 7. Claim 7.

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Elaine on page 256, Fig. 9 illustrates the steps of "The method of claim 6, wherein the first plurality of green elements represent greater gradations in green intensity that the second plurality of green elements".

#### Claim 8. 8.

Elaine on page 256, Fig. 9 illustrates the steps of "The method of claim 1, further comprising displaying the first gray element in a substantially central position relative to the red-blue shifted elements, wherein the first gray element includes substantially equal red, green, and blue values based on the estimated gamma for the green channel".

#### 9. Claim 9.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 1, wherein the red-blue shifted elements do not represent any substantial shift in green away from the color value of the selected green element".

#### 10. Claim 10.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 1, wherein the estimated gamma is limited to only the green channel".

#### 11. Claim 11.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 1, further comprising: estimating the blackpoint of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance".

#### 12. Claim 13.

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Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 11, further comprising: modifying a color image based on the estimated blackpoint, gamma, and gray balance; and delivering the modified color image to the display device".

### 13. Claim 27.

Elaine on page 256 Fig. 9, and also refer to page 122 Fig. 10 and page 252 Fig. 2 illustrates the step of "A computer readable medium containing instructions that cause a programmable processor to: generate a first gray element based on an estimated gamma for a green channel of a display device"; (Elaine on page 15, Fig. 14 illustrates the step of) "generate a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray element"; Elaine on page 256, Fig. 9 illustrates the step of "generate a gray balance of the display device based on user selection of one of the gray elements that appears to most closely blend with a gray background",

### 14. Claim 28.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the instructions cause the processor to characterize the colorimetric response of the display device based on the estimated gamma and estimated gray balance".

### 15. Claim 29.

"The computer readable medium of claim 27, Elaine on page 256 Fig. 9, and also refer to page 15, Fig. 14 illustrates the step of wherein the instructions cause the processor to: select one of a plurality of green elements displayed by a display device that appears to most closely blend with a dithered green background; Elaine on page 256, Fig. 9 illustrates the step of "estimate the gamma for the green channel of the display device based on the selected green element".

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### 16. Claim 30.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the instructions cause the processor to: modify a color image based at least in part on the estimated gray balance; and deliver the modified color image to the display device".

#### 17. Claim 32.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the instructions cause the processor to determine the estimated gamma by: selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements; Elaine on page 256, Fig. 9 illustrates the step of "selecting one of a second plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background, wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for the display device based on the selected one of the second plurality of green elements, wherein the estimated fine gamma is the estimated gamma".

### 18. Claim 33.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 32, wherein the first plurality of green elements represent greater gradations in green intensity that the second plurality of green elements", The step is inherent because a gradual passing from green elements (one tint or shade) to another have greater gradation in green (color) intensity than the second green elements.

## 19. Claim 34.

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Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the instructions cause the processor to display the first gray element in a substantially central position relative to the red-blue shifted elements, wherein the first gray element includes substantially equal red, green, and blue values based on the estimated gamma for the green channel".

### 20. Claim 35.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the red-blue shifted elements do not represent any substantial shift in green away from the color value of the selected green element".

### 21. Claim 36.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the estimated gamma is limited to only the green channel".

### 22. Claim 37.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the instructions cause the processor to: estimate the blackpoint of the display device; and characterize the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance".

### 23. Claim 39.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 37, wherein the instructions cause the processor to: modify a color image based on the estimated blackpoint, gamma, and gray balance; and deliver the modified color image to the display device".

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### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 24. Claims 5, 12, 15-21, 22, 24, 26, 31, 38 and 41-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Elaine, and further in view of Adobe Technical Guides (copyright 2000; hereinafter referenced as "Adobe").
- 25. Claim 5.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 1, wherein the display device is associated with a client residing on a computer network, the method further comprising: transmitting information representing the estimated gray balance to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified color image to the client via the computer network for display on the display device". Elaine does not explicitly specify transmitting information via computer network. However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the

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0.670

range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

### 26. Claim 12.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 11, wherein the display device is associated with a client residing on a computer network, the method further comprising: transmitting information representing the estimated blackpoint, gamma, and gray balance to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified color image to the client via the computer network for display on the display device". Elaine does not explicitly specify transmitting information via computer network. However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network: The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

## 27. Claim 15.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 1, wherein the display device is associated with a client on a computer network, the method further comprising guiding the client through the process of obtaining the estimated gray balance by delivering one or more

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instructional web pages to the client". Elaine does not explicitly specify transmitting information via computer network. However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS

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which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

#### 28. Claim 16.

Elaine on page 256, Fig. 9 illustrates the step of "A system comprising: a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; a color image server residing on the computer network, the color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the information includes a gray balance for each of the display devices, and the color profiling process includes: displaying a first gray element based on an estimated gamma for the green channel of the display device, displaying a set of red-blue shifted gray elements that represent shifts in the red channel, blue channel, or a combination of the red and blue channels away from the first gray value, selecting one of the gray values that appears to most closely blend with a

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gray background, and estimating the gray balance of the display device based on the selected gray element; and one or more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device". Elaine does not explicitly specify transmitting information via computer network. However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

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#### 29. Claim 17.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the color image server stores the information to the client in a web cookie, the client transmits the web cookie from the client to the server, and the color image server modifies the color image via the server based on the contents of the web cookie". Elaine does not explicitly specify transmitting information via computer network. However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network;

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The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

### 30. Claim18.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the color profiling process includes: selecting one of a plurality of green elements displayed by a display device that appears to most closely blend with a dithered green background; and estimating the gamma for the green channel of the display device based on the selected green element". Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 5 and 6, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background.

## 31. Claim 19.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the color profiling process includes determining the estimated gamma by: selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements; selecting one of a second plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background, wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for the display device based on

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the selected one of the second plurality of green elements, wherein the estimated fine gamma is the estimated gamma". Elaine does not explicitly specify transmitting information via computer network, and also, Elaine on page 24, lines 1-18, teaches that the Photoshop will run on Windows NT. The primary function of Windows NT is for networking area (Server. Workstation, Client and etc.). However, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network. To one of ordinary skill in the art, it would have been obvious to use the green channel as the range of gray levels. And also dither gray values because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

### 32. Claim 20.

Elaine on page 256, Fig. 9 illustrates the steps of "The system of claim 19, wherein the first plurality of green elements represents greater gradations in green intensity that the second plurality of green elements".

#### 33. Claim 21.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the color profiling process includes displaying the first gray element in a substantially central position relative to the red blue shifted elements, wherein the first gray element includes substantially equal red, green, and blue values based on the estimated gamma for the green channel". Elaine

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does not explicitly specify transmitting information via computer network, however, Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

#### 34. Claim 22.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the red-blue shifted elements do not represent any substantial shift in green away from the color value of the selected green element". Elaine does not explicitly specify transmitting information via computer network, however, Adobe on page 5, illustrates the gray elements are green elements representing a range of gray levels for the green channel, and the dithered gray background is a dithered green background, the method further comprising: selecting one of the selected green element and a plurality of red-blue shifted elements displayed by the display device that appears to most closely blend with the second dithered green background displayed by the display device; and estimating the gray balance of the display device based on the selected one of the selected green element or selected red-blue shifted element.

#### 35. Claim 24.

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Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the color profiling process includes: estimating the blackpoint of the display device; and including with the information the estimated gamma and estimated blackpoint".

### 36. Claim 26.

Elaine on page 256, Fig. 9 illustrates the step of "The method of claim 16, wherein the display device is associated with a client on a computer network, the method further comprising guiding the client through the process of obtaining the estimated gray balance by delivering one or more instructional web pages to the client", Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

#### 37. Claim 31.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the display device is associated with a client residing on a computer network, and the instructions cause the processor to: transmit information representing the estimated gray balance to a remote server on the network; modify the color image at the remote server based on the information; and deliver the modified color image to the client via the computer network for display on the display device", Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS

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which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

#### 38. Claim 38.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 37, wherein the display device is associated with a client residing on a computer network, and the instructions cause the processor to: transmit information representing the estimated blackpoint, gamma, and gray balance to a remote server on the network; modify the color image at the remote server based on the information; and deliver the modified color image to the client via the computer network for display on the display device", Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

#### 39. Claim 41.

Elaine on page 256, Fig. 9 illustrates the step of "The computer readable medium of claim 27, wherein the display device is associated with a client on a computer network, and the instructions cause the processor to guide the client through the process of obtaining the estimated gray

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balance by delivering one or more instructional web pages to the client", Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

#### 40. Claim 42.

Elaine on page 24, lines 1-18, teach the step of "The computer-readable medium of claim 27, wherein the instructions are contained both in physical data storage media and signals transmitted between the client and other resources on the computer network". Elaine does not explicitly specify transmitting information via computer network, however, Adobe on pages 2-9, teaches Windows NT, 95, 98 and Mac OS which could operate as clients or servers. Using Adobe Gamma (color management workflow) can be installed on a server or on a client workstation. As claim discloses that transmitting information representing the estimated gamma to a remote server on the network; The Adobe gamma modifies the color image when installed/executed on the server, a workstation, or on a network.

Claims 14, 23, 25 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Elaine, Adobe and "Why do Images Appear Darker on Some Displays? An Explanation of Monitor Gamma" By Robert W. Berger, copyright 1997 (referenced hereinafter as "Berger"), and further in view of "Display gamma estimation applet" by Hans Brettel,

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copyright 1999, said applet can be located at http://www.tsi.enst.fr/~brettel/TESTS/Gamma/Gamma.html

(referenced hereinafter as "Brettel").

different ways for the process to work.

41. Claim 14.

Elaine on page 256 Fig. 9, and also refer to page 15, Fig. 14 illustrates the step of "The method of claim 1, wherein the dithered gray background represents a gray level of approximately 33%". the Berger article, page 2, section titled "What is the gamma of my display system?". Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing do (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in

42. Claim 23.

Elaine on page 256, Fig. 9 illustrates the step of "The system of claim 16, wherein the estimated gamma is limited to only the green channel", however, Brettel on page 1, discloses for estimating the gamma includes: selecting one of a first plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background; estimating a coarse gamma for the display device based on the selected one of the first plurality of gray elements; selecting one of a second plurality of gray elements displayed by the display device that appears to most closely blend with the dithered gray background, wherein the second plurality of gray elements includes the selected one of the first plurality of gray elements; and estimating a fine

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gamma for the display device based on the selected one of the second plurality of gray elements, wherein the estimated fine gamma is the estimated gamma.

#### 43. Claim 25.

Elaine on page 15, Fig. 14 illustrates the step of "The method of claim 16, wherein the dithered gray background represents a gray level of approximately 33%". the Berger article, page 2, section titled "What is the gamma of my display system?". Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing do (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

### 44. Claim 40.

Elaine on page 15, Fig. 14 illustrates the step of "The method of claim 27, wherein the dithered gray background represents a gray level of approximately 33%". the Berger article, page 2, section titled "What is the gamma of my display system?". Herein, the article discusses the use of dither gray images in the setting of gamma for a display (which is the same process as in the Brettel applet). Further, the Berger article shows using gray values of 25%, 50%, and 75%. To one of ordinary skill in the art, it would have been obvious to use dither gray values as the background because of the conventionality of doing do (as shown by Berger) and because the two different gray areas (background and center square) need to be generated in different ways for the process to work.

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#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid A Amini Examiner Art Unit 2672

Javid Amini

JEFFERY BRIET PRIMARY EXAMINER